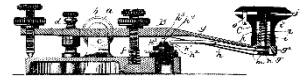




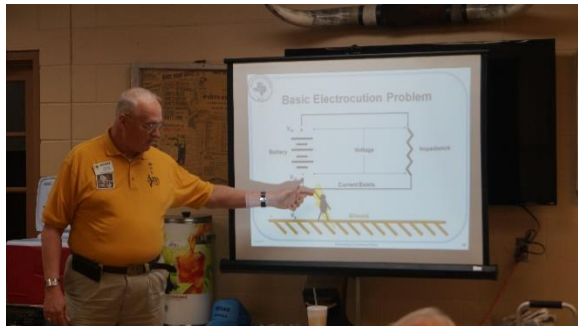
# Bexar Wire

San Antonio Radio Club  
W5SC



2017, No. 4

April 2017



**Harold Fleischer, AE5AS, pointing out the flow of electricity when proper grounding is not used as a part of his presentation on Grounding for Amateur Radio at the SARC meeting on March 9, 2017**



**Harold Fleischer, AE5AS, presenting his report as Chairman of the Board at the SARC meeting on March 9, 2017 presentation**

## Grounding for Amateur Radio

At the 7:00 p. m. meeting on Thursday, March 9, 2017 at Grady's Barbeque, 327 E. Nakoma Dr., San Antonio, TX 78216, the program was on the Grounding for Amateur Radio. Harold Fleischer, AE5AS, was the presenter for this program.

Harold Fleischer, AE5AS, started with Ohm's Law and built from there. He focused for a while on lightning, but a key concept is that electricity always wants to go to ground by the path offering the least resistance. He drove home the point that grounding is like pregnancy: you are grounded or you are not grounded as there is no such thing as partially grounded. He also stressed how all grounds on the property for all purposes, lightning, wiring safety, and bonding, need to be joined together to make one ground. He went on to explain how this includes a tower and the antenna on the property as well. He also briefly discussed grounding requirements for portable generators per the Occupational Health and Safety Agency (OHSA). (A copy of the slides start on page 6.)

## Vector Network Analyzers

### (Yes, Grady's is OPEN!)

Our next club meeting will be at 7:00 p. m. (1900) on Thursday, April 13, 2017, at Grady's Barbeque, 327 E. Nakoma Dr., San Antonio, TX 78216. The program will be a presentation on *Vector Network Analyzers* by David Finell, N7LRY. Come early and join us for supper.

Generally, the officer and committee chairperson reports were routine, but Bob Rodriguez, K5AUW, did have the big highlight among all of those. The Amateur Extra Class that finished on Saturday, February 18, 2017 had nine (9) of its 13 candidates pass the conducted the test for 13 candidates. Nine (9) passed on the spot, and 4 were within a few questions of passing. One of these four took the test a week later and is now an Extra. (Continued on Page 5)

SAN ANTONIO RADIO CLUB

# PRESIDENT'S RADIOGRAM

| NUMBER | PRECEDENCE | HX | STATION OF ORIGIN | CHECK | PLACE OF ORIGIN | TIME FILED | DATE  |
|--------|------------|----|-------------------|-------|-----------------|------------|-------|
| 4      | R          |    | AE5AS             |       | San Antonio, TX |            | April |

TO

W5SC

I had two personal amateur radio highlights in March. First, I successfully fulfilled my promise to Mike Harrison, KB5KST, our Vice President and Program Chairperson, to give a presentation on Grounding for Amateur Radio. I had a pretty good grasp on what to say before I started doing the PowerPoint slides, but I learned more on the way. I encourage everyone to make a presentation on some facet of amateur radio. Second, the visit by Holger Hannemann, ZL3IO, from New Zealand was very interesting. It was well worth the effort involved to gauge interest and then set up the meeting. His personal history, which included being born in East Germany and studying in Russia before the Iron Curtain came down, was something a person seldom encounters. His story on how he and his family got to be in New Zealand was also quite interesting. This was pretty much a last minute event so only a handful of SARC members were able to arrange their schedules to attend, but all of us there enjoyed it.

Richard Elder, WB5ACN, tells me that the first tailgate swap meet at Hangar 18 Surplus on Saturday, March 18, 2017, went well enough that Hangar 18 Surplus is willing to try a few more. I got there rather late, but did talk with two other SARC members there, one of whom was getting a ham T-Shirt made. This is an experiment. For it to be a success, we need to participate.

Field Day 2017 is approaching. I learned today (April 10, 2017) that our Field Day Chairperson, Joe Bruno, W5AUQ, injured himself recently. I will be doing some legwork for him to keep things on track as he recovers. He and I both may need a few other SARC members to help out with the preparatory work. He has already ordered some patch panels from MFJ so we can handle antenna connections, especially in electrical storms better. We both expect some incremental improvements over last year.



*Harold*

AE5AS

## Bexar Wire

Published monthly by:  
San Antonio Radio Club

Harold C. Fleischer, III AE5AS  
President

Harold C. Fleischer, III AE5AS  
Editor  
210-497-2532  
[haroldcf@swbell.net](mailto:haroldcf@swbell.net)

The due date for articles is the Friday before the first Monday of the month.

Harold Fleischer, AE5AS, President, called the meeting to order at 7:02 p. m. at Grady's BAR-B-Q, 327 E. Nakoma Dr., San Antonio, TX 78216. There were 25 members and 1 guest in attendance.

Harold Fleischer, AE5AS, then introduced himself as Harold AE5AS and then in accordance with SARC custom asked everyone else to introduce themselves.

Due to technical problems with the computer, the program was deferred until later in the meeting.

Harold Fleischer, AE5AS, then reviewed the printed agenda for meeting with the members present and asked if there were any modifications. There being no modifications suggested, Harold Fleischer AE5AS announced the printed agenda as orders for the meeting without objection by unanimous consent.

Harold Fleischer, AE5AS, then stated that whereas the minutes for the last meeting on January 12, 2017 had been distributed in the February 2017 Bexar Wire newsletter that unless there were corrections or objections that we would dispense with the reading of the minutes and approve them as written without objection by unanimous consent.

President

David Espinoza, W5QS, resigned as webmaster. Basically, he took offense to my position that the website should be more current and relevant.

Need a Newsletter Editor

Need a Webmaster

Vice President – He solicited more presenters for future programs and pointed out a book in which you may writing your presentation by month.

We need to know if anyone other than Bob Rodriguez, K5AUW, has a video projector and screen to work with a laptop. The burden of hauling that type of equipment around needs to be shared.

Future Program: The April 13, 2017 program will be *Vector Network Analyzers* by David Finell, N7LRY.

Secretary – Working on continuing filing.

Treasurer – Financial Report.

Membership renewals for \$15 and cards are on hand.

He is also working to get the registration done for the trailer.

Newsletter Editor - The March 2017 newsletter was sent out by Bill Crabtree, K5FRQ. On March 6, 2017.

The deadline for input, as stated on the bottom of page 2, remains the last Friday of the month.

Webmaster – The present website was rebuilt in about 8 hours and uploaded on Feb 24, 2017. After testing in a live environment, it was updated and uploaded again on Feb 26, 2107.

The acting webmaster plans updates twice a month:

The first update will happen within 24-48 hours of the Bexar Wire being emailed to members.

The second update will happen about 48 hours after the monthly meeting such that the News Blast! is current.

Other updates can be made as needed, e. g., when the Radio Fiesta 2018 Dealer Letter goes out, the website can be updated shortly thereafter.

Chairman of the Board Report –Bob Rodriguez, K5AUW, announced that the Board met after the General Membership Meeting on Feb 8, 2017 to review the proposed budget by the Executive Committee and to review Radio Fiesta 2017 lessons learned.

The budget was approved as presented. It was basically a balanced budget with a conservative slant. It was emailed to all members with the meeting reminder for this month.

There were no big lessons learned beyond those covered in the General Membership Meeting last month at the Board Meeting. A zip code analysis supporting the flyer mailing was sent out as promised at the Board Meeting.

The Board does plan to meet tonight to review the lessons learned from Field Day 2016 as Field Day 2017 is fast approaching.

#### Committee Reports

Education and Training – Bob Rodriguez, K5AUW, reported that the Extra Class finished on Saturday, February 18, 2017. The VEs conducted the test for 13 candidates. Nine (9) passed on the spot, and 4 were within a few questions of passing. One of these four took the test a week later and is now an Extra.

Next class will be a Technician class maybe April or May.

Emergency Communications – JC Smith, N5RXS, stated that there will be a Weather seminar on March 11, 2017. The fee for this is over \$49 or \$79 at the door. The website is storm-center.net.

The Severe Weather SKYWARN conference will be on April 22, 2017 at the University of Incarnate Word.

Executive – No meetings since last month.

Field Day - Joe Bruno, W5AUQ, will be filing the permit with the City of Shavano Park this month.

He needs captains to volunteer for bands.

We will not be attaching antennas to the tent this year.

Finance and Review – Inactive until next January.

JOTA – Bob Rodriguez, K5AUW, had no report since JOTA is next fall.

Membership – Tom O'Brien, AB5XZ, reported that so far, we have 103 members for 2017. This includes 19 dues free members who are either active military or new hams.

Richard Elder, WB5ACN, said he had a 2000 membership list and asked to whom he should give it. Tom, AB5XZ, said he would take it and review it for possible members to renew.

Nominating (Inactive-no appointments)

Radio Fiesta – No report.

VEC – The Extra Class was supported on February 18, 2017.

The regularly scheduled session at 10:00 a. m. on February 25, 2017 at the Great Northwest Library attracted 15 candidates. All, but one person got the license they for which they came. One person surprised himself by passing the General test after passing the Technician test.

The next regularly scheduled session at 10:00 a. m. on April 22, 2017 at the Great Northwest Library.

Centennial Commemoration (Temporary) - Tom O'Brien, AB5XZ, had no report at this time.

CW Training (Temporary) – Joe Bruno, W5AUQ, has acquired some CDs and other training material and asked who wanted to start training ASAP.

Cray Lester said that he had 3 operator sets and 2 straight keys that he could loan.

Tailgate Swap Meet Committee (Temporary) – Richard Elder, WB5ACN, has set up a tailgate swap meet for March 18, 2017 from 7-10 a. m. at Hangar 18 Surplus. If this works, it may become a regular event.

Old Business - None

#### New Business

Lloyd Swartz, KF5ZHW, moved that SARC have a free booth at the Highland Games on April 1-2, 2017 and set up a radio station to try and make contacts to Europe. The motion was seconded by John D'Andrea, AA5JD. After discussion, a vote was taken. There were 15 Yeas and 0 Nays. The motion carried. The President asked for someone to chair this effort. There were no volunteers to chair this effort so the President declared it dead.

#### Announcements For The Good of Amateur Radio

Holger Hannemann, ZL1IO, from New Zealand will be in San Antonio on Friday, March 17, 2017. He would like to meet Hams here and has a presentation on amateur radio in New Zealand and his

activities. If we have several people interested, we can set up a meeting. Lloyd Swartz, KF5ZHW, JC Smith N5RXS, Richard Elder, WB5ACN, and Joe Bruno, W5AUQ said that they would like to meet with Holger, ZL1IO, so the President will work on setting up the meeting for 7:00 p. m., Friday, March 17, 2017.

Richard Elder, WB5ACN, talked about a cheap voice storage card to help Hams do repetitive CQ calling and some other electronics starting at 8:21 p. m. and ending at 8:33 p. m.

The meeting was adjourned at 8:34 p. m.

Lloyd Swartz, KF5ZHW  
for Bob Thompson, K5RWT  
Secretary

## Grounding for Amateur Radio

(Continued from Page 1)



Mike Harrison, KB5KST, presenting his Program report at the SARC meeting on March 9, 2017

Richard Elder, WB5ACN, made a report on the Hangar 18 Surplus Tailgate Swap Meet for March 18, 2017. This is a new ham event that is being tried out. It will probably be done for a few months at least. If it turns out to be successful, it will probably become a somewhat permanent activity.



Richard Elder, WB5ACN, announcing information about a cheap voice storage card while demonstrating it at the SARC meeting on March 9, 2017

Richard Elder, WB5ACN, also demonstrated a voice storage card that might have applications for ham radio that garnered a lot of interest and had people swarming him after the meeting for more information.

Harold Fleischer, AE5AS, announced that Holger Hannemann, ZL1IO, a ham from New Zealand was interested in meeting with hams in San Antonio on Friday, March 17, 2017, and delivering a presentation about amateur radio in New Zealand. Based on the interest expressed by at least 4 members, Harold, AE5AS, will set up the meeting and let those interested know the details.



Room wide views of members at the SARC meeting on March 9, 2017 shortly before the official start

# Grounding for Amateur Radio Presentation Slides



## Ohm's Law

$$V = I \times R$$

Voltage = Current x Resistance

$$V = I \times Z$$

Voltage = Current x Impedance

$$V = \left( \frac{1}{C} \int i \, dt \right) + (i \times R) + (L \times \frac{di}{dt})$$

Voltage = Capacitance divided into the integral of Current over time  
+ Current times Resistance  
+ Inductance times the derivative of Current over time

This equation is why imaginary numbers and polar coordinate mathematics appear in the license examination for Amateur Extra.

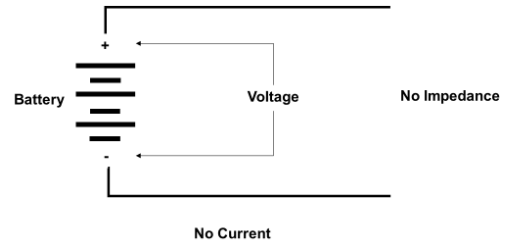
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Grounding For Amateur Radio

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## Open Circuit



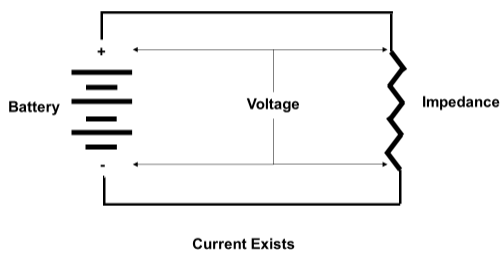
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## Basic Complete Circuit



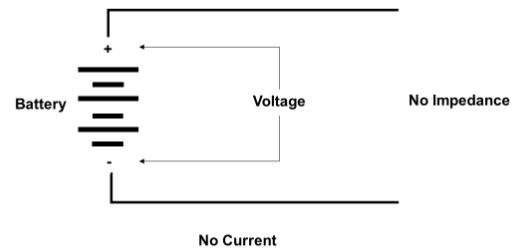
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## Open Circuit



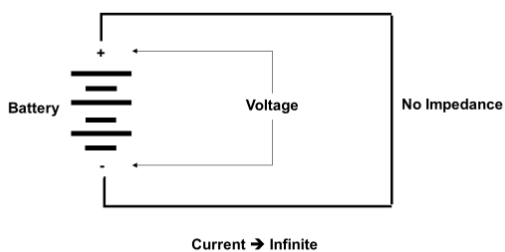
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## Short Circuit



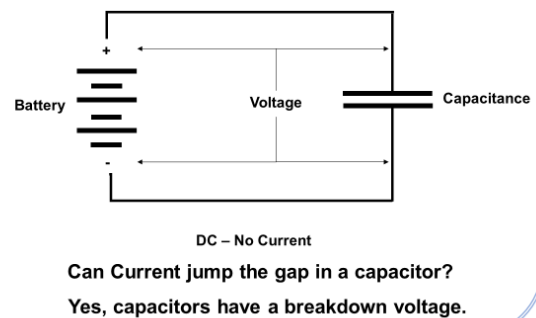
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## Basic Capacitance Circuit



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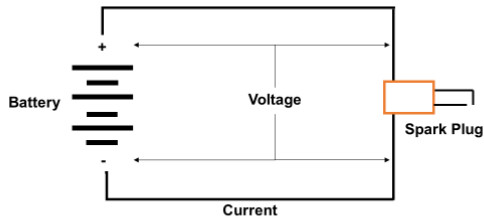
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## Can Electrons Jump Air Gaps?



Yes, spark plugs in a car, etc., are all about jumping an air gap to create a spark.

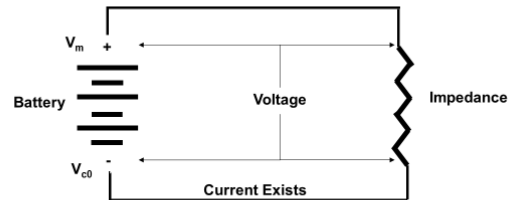
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## Basic Ground Problem



If  $V_{c0}$  does not equal  $V_g$ , Electrons want to get to ground.



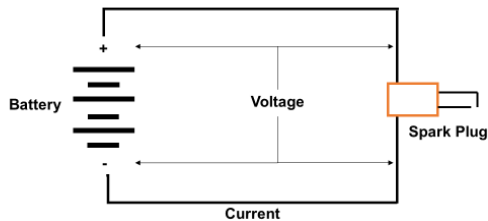
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Grounding For Amateur Radio

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## Can Electrons Jump Air Gaps?



Yes, spark plugs in a car, etc., are all about jumping an air gap to create a spark.

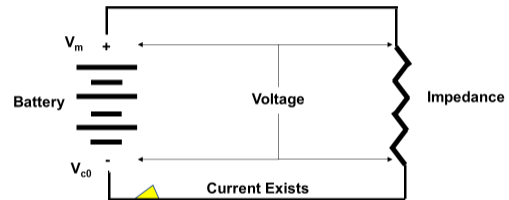
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## Basic Electrocutation Problem



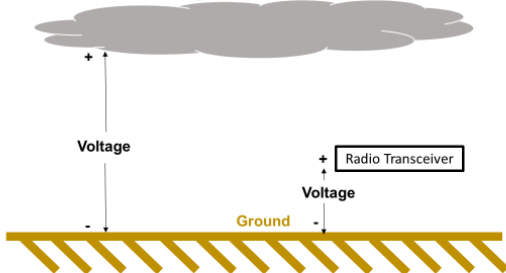
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## Electrons Always Want to go to Ground



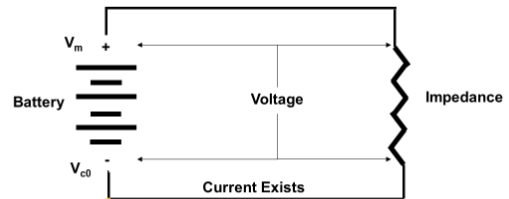
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## Basic Grounding Solution



$V_{c0} = V_g$ , and you are no longer the best path to ground.



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## Basic Grounding Truth

- Grounding is like Pregnancy
  - You are Grounded or you are not Grounded.
  - There is no such thing as partially Grounded.
- 
- Ideally, you have a Ground when the ground resistance value is 0 ohms.
  - NEC requires a ground resistance value of <25 ohms.
  - NEC recommends a ground resistance value of 5 ohms or less for sensitive equipment.
  - Type of soil affects what you have to do to get a good ground resistance value.

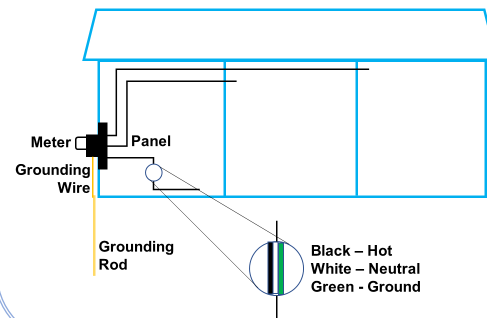
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## Grounding in a House



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## Ground Resistance Measurements

- Very complicated; not necessarily inexpensive.
  - Must drive ground rod and then other rods to do measurements.
  - Meters can cost upwards of \$200-\$300.
- 
- The default is to follow the NEC.
  - Install ground rods or ground plates.

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Grounding For Amateur Radio

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## Example of a House Ground



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Grounding For Amateur Radio

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## Grounding Rods and Plates

- Grounding Rod must be:
  - Copper or copper clad aluminum.
  - At least 8' long with only 3" showing.
  - At no more than an angle of 45 degrees when driven in.
- Measuring Ground Resistance is complicated.
- Mechanical Clamp of AWG 6 copper wire or braid. (A high current will melt solder.)
- Grounding Rod may be placed horizontal in a 30" deep trench if they can not be installed vertically.
- Grounding Plate must be:
  - 2 feet square ( 1' x 1' x 2 sides).
  - 1/4" thick if ferrous, 1/16" thick if non-ferrous.
  - Hole in center for bolt, nut, and lock washer.
  - Top of plate must be 5' below the surface of the ground. (The more square feet in the plate, the more likely Ground Resistance measurement objectives will be met.)

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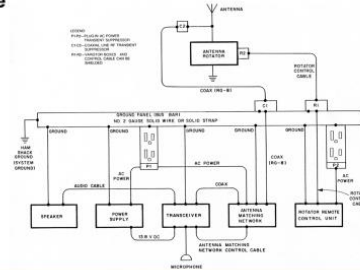
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## Bonding

- Bonding is Grounding
- Bonding is tying equipment together to eliminate or dampen inter component electrical interaction: Noise



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## Number of Grounds for your Property

# ONE

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## Grounding Example



Example of Lightning Arrester (Surge Protector)  
at bottom of drip loop.



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## Multiple Grounding Rods - One Ground

- Shortest Path matters
- Ground from Meter/Panel goes straight down to Grounding Rod
- Ground from Antenna needs to go straight down even if antenna feed cable has to make a turn to the "Radio Shack"
- Ground from "Radio Shack" needs to go straight down
- Ground from Tower needs to go straight down
- Tie all ground rounds together with AWG 3/0 buried 18" deep.

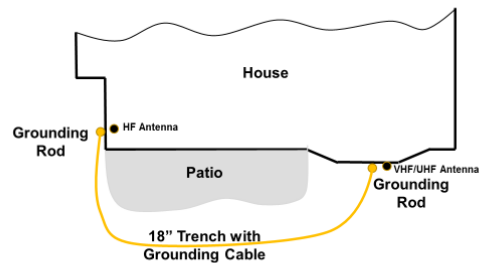
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## Grounding Example Site Plan



Remember: Number of Grounds on Your Property?

# ONE

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## Grounding Example



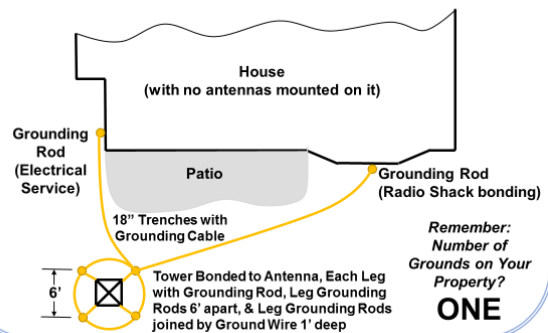
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## Grounding with Tower Example



Remember:  
Number of  
Grounds on Your  
Property?

# ONE

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Grounding For Amateur Radio

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## Emergency Generators

### OSHA Fact Sheet

- Frame of portable generator may serve as ground if:
  1. Generator supplies only equipment mounted on it or cord connected equipment through receptacles mounted on it.
  2. Non-current metal parts of equipment are bonded to the frame and grounding conductor terminals are grounded to the frame.
- Do not connect a generator to a structure except through a transfer switch.  
*Very sensitive situation that may require generator to be grounded.*

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Grounding For Amateur Radio

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## References

- ARRL Handbook, Chapter 28.1, 91<sup>st</sup> Edition, 2014.
- CECOM TR-96-2, Earth Grounding Pamphlet, May 1996.
- OSHA Fact Sheet: Grounding Requirements for Portable Generators, DSTM 10/2005

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Grounding For Amateur Radio

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## Review

### You ground to:

- Protect against an electrical fault
- Protect against lightning
- Suppress noise in electrical equipment

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Grounding For Amateur Radio

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These slides are all in a Microsoft PowerPoint 2016 file that can be emailed to anyone who is interested by simply emailing the editor at the email address shown on Page 2.

# TECHNICIAN CLASS COURSE

**Where:** Christus Santa Rosa Medical Center Hospital, 2827 Babcock Rd (West of the Medical Center, between Medical Drive. and Hamilton-Wolfe Rd.), in the Kingman room. (As you go in the main entrance, turn right past the information desk. The room is at the end of the hall.)

**When:** Saturdays, May 27 and June 3, 2017, 9AM to 5PM.

Attendees should attend both sessions. The Technician License Test will be given Saturday, June 3rd at 3PM.

**Cost:** \$15 for license exam by Volunteer Examiners



**Recommended study material:** Gordon West, W5YI Technician Class Book.

(Available at [www.w5yi](http://www.w5yi) or 1-800-669-9594. Cost, about \$22)

For additional information, please contact Bob Rodriguez at (210) 887-6618 or [bobrod@flash.net](mailto:bobrod@flash.net)

## New Zealand Ham Visits San Antonio



**Holger Hannemann, ZL3IO, from New Zealand making his presentation on amateur radio in New Zealand to available SARC members on March 17, 2017**



**Holger Hannemann, ZL3IO, (white shirt) from New Zealand making his presentation on amateur radio in New Zealand SARC members (L to R) while Harold Fleischer, AE5AS, Lloyd Swartz, KF5ZHW, Richard Elder, WB5ACN, and Rich Roudebush, N4CDA (green shirt) listen on March 17, 2017**

At the 7:00 p. m. meeting on Friday, March 17, 2017, six (6) SARC hams came together

to meet Holger Hannemann, ZL3IO, of New Zealand at Grady's Barbeque, 327 E. Nakoma Dr., San Antonio, TX 78216. After some eating and conversation, Holger, ZL3IO, made a PowerPoint presentation about amateur radio and his activities in New Zealand. Harold Fleischer, AE5AS, had printed copies for each person ahead of time to make it easier to follow the presentation. The presentation made by Holger, ZL3IO, was well received. Holger, ZL3IO, is an accomplished DX and contester at what he called the end of the world.

The SARC members in attendance were: John D'Andrea AA5JD, Richard Elder WB5ACN, Harold Fleischer AE5AS, Gary Harrison KB5KST, Rich Roudebush N4DCA, and Lloyd Swartz KF5ZHW.



**Gary Harrison KB5KST, John D'Andrea AA5JD, Holger Hannemann ZL3IO, Lloyd Swartz KF5ZHW, Richard Elder WB5ACN, & Rich Roudebush N4CDA in San Antonio on March 17, 2017 (Harold Fleischer AE5AS present, but not in picture)**

## Next License Test on Saturday, April 22, 2017



Pat Knight, AD5BR, Chairperson, Volunteer Examination Committee, and several members of that committee will be conducting amateur radio license examines on Saturday, April 22, 2017. The test session will start at 10:00 a. m. at the Great Northwest Library. This test session is open to the public although pre-registration is encouraged. There is a \$15 FCC authorized fee.

## Amateur Radio Equipment Donations

SARC received the items over the last year. They have appeared in several issues of the **Bexar Wire** with the prices shown in those issues being the estimated value with eBay being a prime source for the value. SARC offered up these items at Radio Fiesta 2017 and sold some. The following is a list of the items still available. ***Make an offer!*** This listing has been updated to show what the *Marked Price* was for Radio Fiesta 2017 and the *Reserve Price*. It does not take very much imagination to figure out how much more amenable to entertaining your offer that SARC is now. Contain Harold Fleischer, AE5AS, with your offer.

| SARC Amateur Radio Equipment Donation List                                          |                                                                                                                   |                             |          |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------|----------|
| Picture                                                                             | Nomenclature                                                                                                      | Marked/<br>Reserve<br>Price | Not<br>e |
|    | Hammarlund HF+-6M Radio Receiver<br>Model Number HQ-110 16.5" W x 9.5" H<br>x 9.5"D                               | \$160.00/<br>\$120.00       |          |
|   | Hallicrafters Transmitter Model HT-40<br>SN 102117 13.25" W x 7.25" H x 8.5" D                                    | \$100.00/<br>\$60.00        |          |
|  | EICO In Circuit Capacitor Tester Model<br>955 SN 13007 .1-50 MFD 5.75" W x 9.5"<br>H x 5.5" D                     | \$25.00/<br>None – sell it  |          |
|  | Micronta 43-Range Multitester 5.25" W x<br>6.5" H x 2.5" D in box w/ instructions w/<br>Black and Red Test Probes | \$25.00/<br>None – sell it  |          |
|  | Knight P-2 SWB/Power Meter with Con-<br>nected Transmission Line Interface Box                                    | \$25.00/<br>None – sell it  |          |



| SARC Amateur Radio Equipment Donation List                                        |                                   |                             |          |
|-----------------------------------------------------------------------------------|-----------------------------------|-----------------------------|----------|
| Picture                                                                           | Nomenclature                      | Marked/<br>Reserve<br>Price | Not<br>e |
|  | Type CRP-53198 RF Filter Assembly | \$10.00/<br>None – sell it  |          |

## International Crystal Manufacturing Closing Down

***International Crystal Manufacturing is circulating a letter that they are closing down. They intend to honor all orders and may accept a few more if they have the raw materials available. If you need or think you may need crystals, you should contact them immediately as they expect to close by the end of May 2017.***

## Some Ham Equipment Available

Gil Villanueva, W8GIL, has some Ham equipment in new or practically new condition. He has a never installed Yaesu FTM-400DR/XDR, a FT20R, an Alpha 10-40 meter loop with tripod and bag, an Alpha 10-80 Tactical tuner free antenna, a YT-1200 tuner, and a Rig Expert AA54 Antenna Analyzer that he is interested in selling. If interested, email him directly at [gilv.45@gmail.com](mailto:gilv.45@gmail.com)

## Tower Available

Doug Gollihar, NA5YO, has a 10 year old 40' tubular tower with an R7 antenna on it. It cranks up and down between 20 and 40 feet. It can also be laid over on its side. It is located at 146 Langford Place near Stinson Field. It requires a 2 foot square by 5 foot deep concrete base. If interested, call his son Daniel at 210-834-5446.

# Ham Tailgate Swap Meet

Sponsored by Hangar 18 Surplus



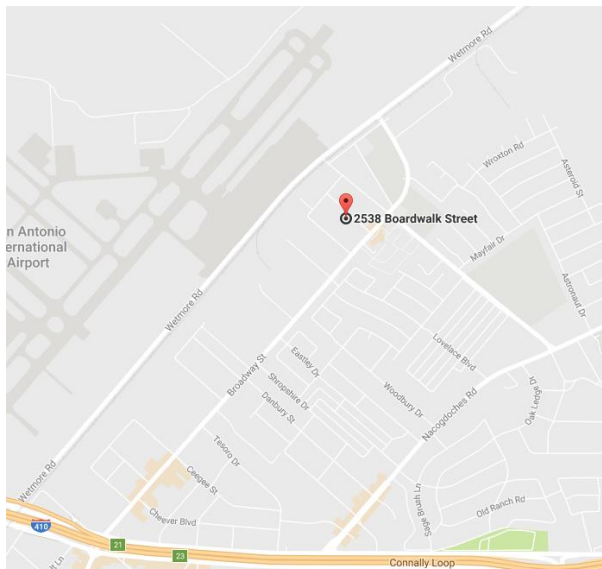
**Saturday, April 15, 2017, from 7 a. m. until 10:00 a. m.  
Coffee and Donuts**



Location: Hangar 18 Surplus  
2538 Boardwalk  
San Antonio, TX 78217

Hangar 18 Surplus carries a wide selection of coax adapters, cables, and the \$1.00/pound electronic chassis/things to be repaired. For the Ham Tailgate Swap Meet, Hangar 18 Surplus will also have a trailer with a selection of used, empty transit cases suitable for use by Hams as GO-KITS and outdoor cabinets suitable for use by Hams for antenna tuners. The cases will be priced at \$1.00/pound.

Hangar 18 Surplus has many embroidered hats and shirts available from an additional product line in which they also do business.





## Yahoo Groups



SARC has had a Yahoo Group for a number of years now. Its name is W5SC.

W5SC is being used to publicize SARC business meetings. It can be used for other things like promotion of VEC testing and classes. Members of the W5SC Yahoo Group can and have asked each other technical questions or sought assistance.

W5SC is a closed group. To become a member, go to [groups.yahoo.com](http://groups.yahoo.com). (You may need to have a Yahoo account.) This will take you to a website where your groups, if any, are shown with a Search Group box at the top. Enter W5SC. This will take you to the search results page with W5SC on it. Select W5SC to go to the W5SC Yahoo Group. You will then need to select + *Join Group*. This generates a message. SARC members can expect approval to join the W5SC in probably less than 24 hours.

## SARC Tweets



Reminder: there are two Twitter accounts for the San Antonio Radio Club. They are @SARadioClub and @ARadioFiesta.

The @SARadioClub is being used to publicize SARC meetings. It can be used for other things like promotion of VEC testing and classes.

As Radio Fiesta 2018 work has not yet commenced, the @ARadioFiesta is currently in standby mode for the January 13, 2018 Radio Fiesta.

SARC members are encouraged to follow both Twitter accounts.

## SARC Facebook



There is a San Antonio Radio Club – SARC (@saradioclub) Facebook Page.

The newsletter editor is making posts about SARC meetings and other activities. Any Officer, Committee Chairperson, or member who believes that they have information that should be posted to this page should contact the newsletter editor using the contact information for the newsletter editor on page 2 of this newsletter.

SARC members are encourage to follow this Facebook Page.

## SARC has a website:

w5sc.org

Webmaster: webmaster@w5sc.orgt

## Amateur Radio License Classes

A Technician Course will be held on May 27, 2017 and June 3, 2017 at Christus Santa Rosa Medical Center. The license test will start at 3:00 p. m. on June 3, 2017.

For more information, contact:  
Bob Rodriguez K5AUW, Instructor

## SARC Meeting Dates for next 12 Months

April 13, 2017  
May 11, 2017  
June 8, 2017  
July 13, 2017  
August 10, 2017  
September 14, 2017  
October 12, 2017  
November 9, 2017  
December (None)  
January 11, 2018  
February 8, 2018  
March 8, 2018

Meetings are held at Grady's Barbeque,  
327 E. Nakoma Dr., San Antonio, TX  
78216 at 7:00 p. m.

Come early and eat with other members  
coming early.

## License Testing Dates for 2017 and early 2018

April 22, 2017  
June 24, 2017  
August 26, 2017  
October 28, 2017  
January 13, 2018  
February 24, 2018

Times and locations along with required  
document information can be found on  
SARC's website.

SARC does all its licensing testing as a part  
of ARRL Volunteer Examiner Coordinator  
(VEC) organization so all the Volunteer Ex-  
aminers in SARC are duly authorized Vol-  
unteer Examiners of ARRL's VEC.

## Field Day 2017

Setup: Friday, June 22, 2017  
Operations: Saturday, June 24, 2017  
& Sunday, June 25, 2017

*Where SARC proves they are an  
eating group with a radio problem.*

More information to follow, but hold these  
dates.

## JOTA

Boy Scout Jamboree On The Air

This year's date is Oct 21, 2017. The plan  
is to again hold it at the Texas Transporta-  
tion Museum.

For more information, contact:  
Bob Rodriguez, K5AUW

## Radio Fiesta 2018

January 13, 2018  
Schertz Civic Center  
See newsletter article for more information

## Emergency Communications

If you are interested in emergency commu-  
nications, contact:  
JC Smith N5RXS